Listing of Claims

This listing of claims will replace all prior listings of claims in the application:

1-4. Cancelled.

5. (Currently Amended) A method of hydrocracking a heavy oil including at least one of asphaltene, residual carbon, nickel and vanadium in a reactor comprising the steps of contacting the heavy oil with a catalyst comprising iron and active carbon having an MCH conversion rate of 40-80%, specific surface area of 600-1000 m^2/g, pore volume of 0.5-1.4 cm^3/g, 2-50 nm mesopore volume of not less than 60% and average pore diameter of 3-6 nm, the iron being carried on the active carbon in an amount of 1-20 wt.% with respect to the active carbon.

6. (Previously Added) The method of Claim 5, wherein the catalyst consists of iron and the active carbon.

7. (Previously Added) The method of Claim 5, wherein the catalyst has not been subjected to a pre-sulfurization reaction.

8. (Currently Amended) The method of Claim 5, wherein the heavy oil is at least one member selected from the group consisting of Middle-Eastern based Arabian heavy, Basra, Kafdi, Iranian heavy, vacuum residual oils ~~and~~, atmospheric distillation residual oils, Canadian Athabasca Bitumen Vacuum Distillation Residual Oils, Venezuelan Cerro Negro Atmospheric Distillation Residual Oils and Mexican Maya Vacuum Distillation Residual Oils.

9. (Previously Added) The method of Claim 5, wherein heavy metals are removed during the contacting step.

10. (Previously Added) The method of Claim 5, wherein at least one of nickel and vanadium are removed during the contacting step.

11. (Previously Added) The method of Claim 5, wherein asphaltene is removed during the contacting step.

12. (Previously Added) The method of Claim 5, wherein coke generation is suppressed.

13. (Currently Amended) The method of Claim 5, comprising a first step of conducting hydrocracking at a temperature of from 360-450°C and at a hydrogen partial pressure of 2-14 MPaG and a second step of conducting hydrocracking at a temperature of from 400-480°C and at a hydrogen partial pressure of from 2-18 MPaG, the catalyst being present during the first and second steps and the first step being conducted under a different reaction condition than the second step.

14. (Previously Added) The method of Claim 13, wherein the concentration of the catalyst is 6-40 wt.% with respect to oil in the first and second steps.

15. (Previously Added) The method of Claim 5, wherein the catalyst consists essentially of iron and the active carbon.

16. (New) The method of Claim 5, wherein the heavy oil is a distillation residual oil.

17. (New) The method of Claim 13, wherein the first step is conducted at a lower temperature than the second step.

18. (New) The method of Claim 5, wherein the catalyst is maintained in a fluid state and homogeneously dispersed in the reactor.

19. (New) The method of Claim 5, wherein the heavy oil contains a heptane-insoluble matter in an amount of 9.08 to 23.5 wt.%.

20. (New) The method of Claim 5, wherein the heavy oil contains at least one of nickel and vanadium in a total amount of 233 to 760 ppm by weight.

21. (New) The method of Claim 5, wherein the heavy oil contains fractions having a boiling point of not lower than 525°C in an amount of from 71.1 to 93.4% by volume.

22. (New) A method of hydrocracking a distillation residual oil including at least one of asphaltene, residual carbon, nickel and vanadium in a reactor comprising a first step of conducting hydrocracking of the distillation residual oil at a temperature of from 360-450°C and at a hydrogen partial pressure of 2-14 MPaG in the presence of a catalyst maintained in a fluid state and homogeneously dispersed in the reactor, the catalyst comprising iron and active carbon having an MCH conversion rate of 40-80%, specific surface area of 600-1000 m^2/g, pore volume of 0.5-1.4 cm^3/g, 2-50 nm mesopore volume of not less than 60% and average pore diameter of 3-6 nm, the iron being carried on the active carbon in an amount of 1-20 wt.% with respect to the active carbon, and a second step of conducting hydrocracking in the presence of the catalyst, at a temperature of from 400-480°C and at a hydrogen partial pressure of from 2-18 MPaG, the first step being conducted at a lower temperature than the second step.